

#### ABSTRACT OF THE DISCLOSURE

In an air conditioner for a vehicle, when a target rotation speed of an electric compressor calculated by a target rotation speed calculating means is higher than an upper limit set by an upper limit setting means and a noise level is reduced from a level equal to or higher than a predetermined noise level to a level lower than the predetermined noise level, an inverter controls the compressor to stop for a predetermined period of time and subsequently increase rotation speed to the upper limit. Since the compressor is stopped for the predetermined period of time, the rotation speed of the compressor is controlled without detecting a rotational position of the compressor. Therefore, when the target rotation speed is higher than the upper limit and the noise level is decreased lower than the predetermined noise level, an actual rotation speed of the compressor is immediately decreased.